

REMARKS

Applicant thanks the Examiner for allowing claims 1-27 and 30-37.

The Examiner rejected claims 28 and 29 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,949,483 to Fossum et al. (Fossum). The threshold issue under section 102 is if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. MPEP 2131. Fossum discloses a multiresolution readout imaging display that averages rows and columns through charge redistribution among capacitors. Col. 12, lines 36-65.

Applicant respectfully requests that the Examiner reconsider claims 28 and 29.

Claim 28 recites:

A method of controlling a group of active pixel sensors comprising:

for each of a plurality of particular subgroups of the group of active pixel sensors, controlling the collection of active pixel sensors such that buffered voltage sensor signals of the active pixel sensors of the particular subgroup are substantially simultaneously coupled to an output node to provide a collective output signal for the particular subgroup; and

recording, at the output node, an indication of the collective output signal.

Specifically, Fossum fails to substantially simultaneously couple the buffered voltage sensor signals of the active pixel to an output node to provide a collective output signal for the particular subgroup. Rather, Fossum couples a set of capacitors to a set of pixels, for example a set of three pixels (a first row of pixels) to three capacitors, by

globally pulsing switches between the pixels and the capacitors. The capacitors are connected together by other switches and therefore charge is redistributed between them. The redistributed charge for the three pixels is stored on a fourth capacitor. The process is then repeated for three more pixels (a second row), and the redistributed charge is stored on a fifth capacitor. The process is then repeated for three more pixels (a third row) and the redistributed charge is stored on a sixth capacitor. Then the fourth, fifth, and sixth capacitors are connected together and the first through third rows are averaged together, into a block average. The block average is then read out. Col. 12, line 36 - col. 13, line 11.

The process in Fossum for charge redistribution is in direct contrast to claim 28. Fossum redistributes charge through a series of capacitors, opening and closing switches as necessary to combine charge from different columns, then to combine the rows. Switching and charging capacitors necessarily takes time and should not be considered “substantially simultaneously.” Fossum fails to combine the signals substantially simultaneously to an output node to provide a collective output signal. Finally, charge redistribution in Fossum occurs through a set of capacitors, rather than as a buffered voltage sensor signal of an active pixel sensor to an output node, as recited in claim 28. Fossum combines the signals before they are output to an output node, in contrast to claim 28.

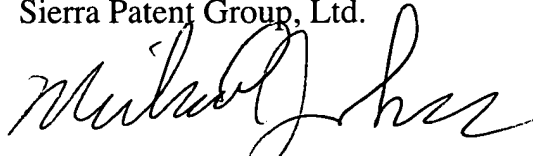
Applicant respectfully requests that the Examiner review the specific differences between Fossum and claim 28 pointed out by Applicant. Claim 28 is not anticipated by Fossum and is in condition for allowance.

Although claims 28 and 29 differ, claim 29 is an apparatus claim with the same limitations as claim 28 with respect to their relevance to Fossum. The same argument applied to claim 28 applies to claim 29. Applicant maintains that Fossum also fails to anticipate claim 29.

Applicant respectfully requests that the Examiner allow all the claims and direct the application to issue.

In view of the foregoing, consideration and an early allowance of this application are earnestly solicited.

Respectfully submitted,
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